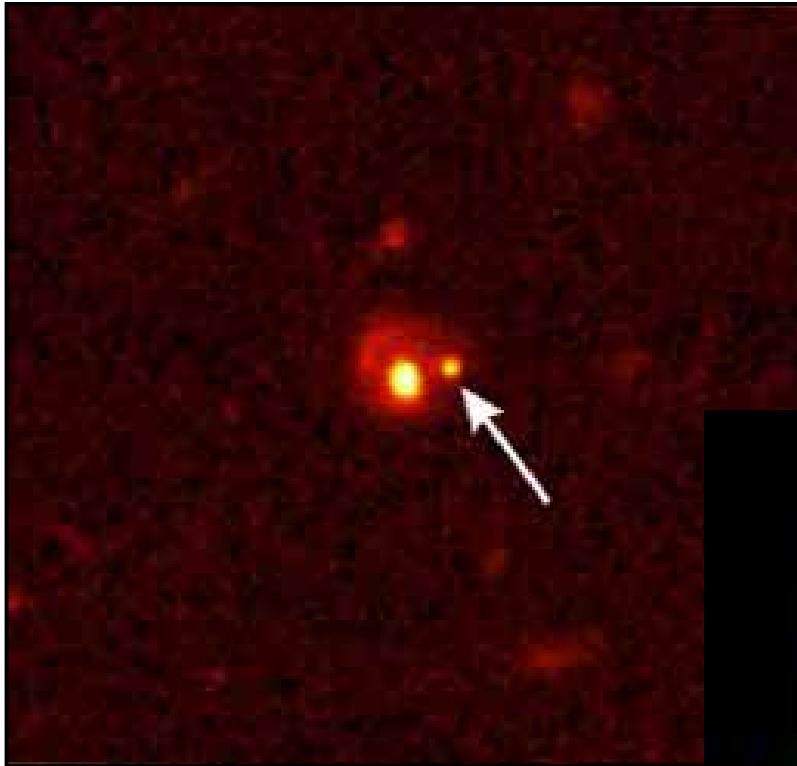


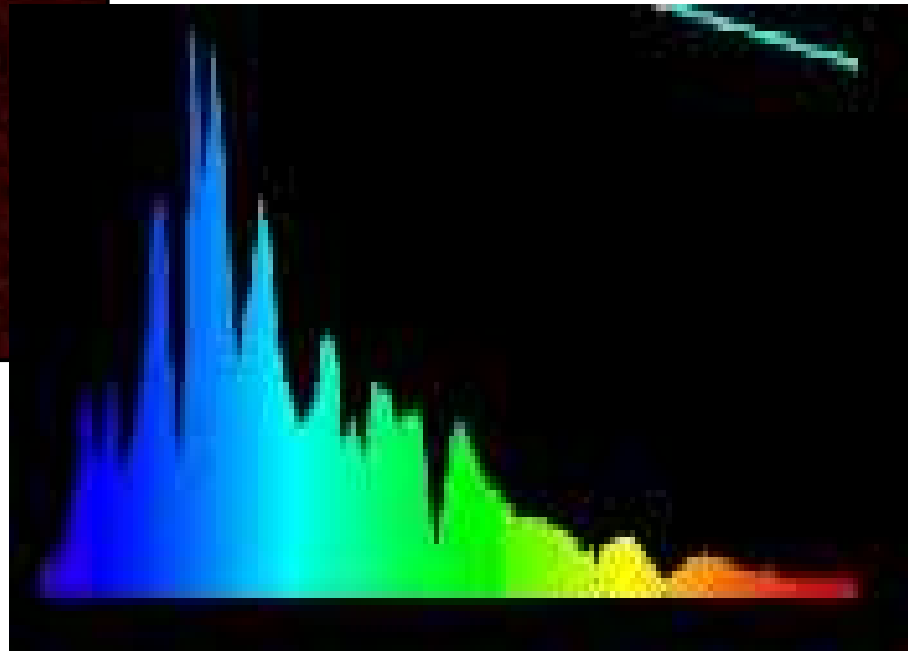


SNAP Education and Public Outreach Programs



$$\Omega_M \quad \Omega_\Lambda$$

$$\Omega_T$$





SNAP Education and Public Outreach

The SNAP program builds on the extensive experience of SNAP scientists and collaborators in developing engaging and innovative education and public outreach programs

Susana Deustua (PI) & Paul Preuss (LBNL)
Eileen Engel (Chabot Space and Science Center)
Andrew Fraknoi & Robert Havlen (Astronomical Society of the Pacific)
Alan Gould & Carl Pennypacker (Lawrence Hall of Science)
Isabel Hawkins (UC-Berkeley, Space Sciences Laboratory)



Education and Public Outreach

The recent high redshift supernova results of the accelerating universe have fired the public's imagination

High public interest in astronomy and cosmology





Education and Public Outreach

The SNAP mission provides an unprecedented opportunity for

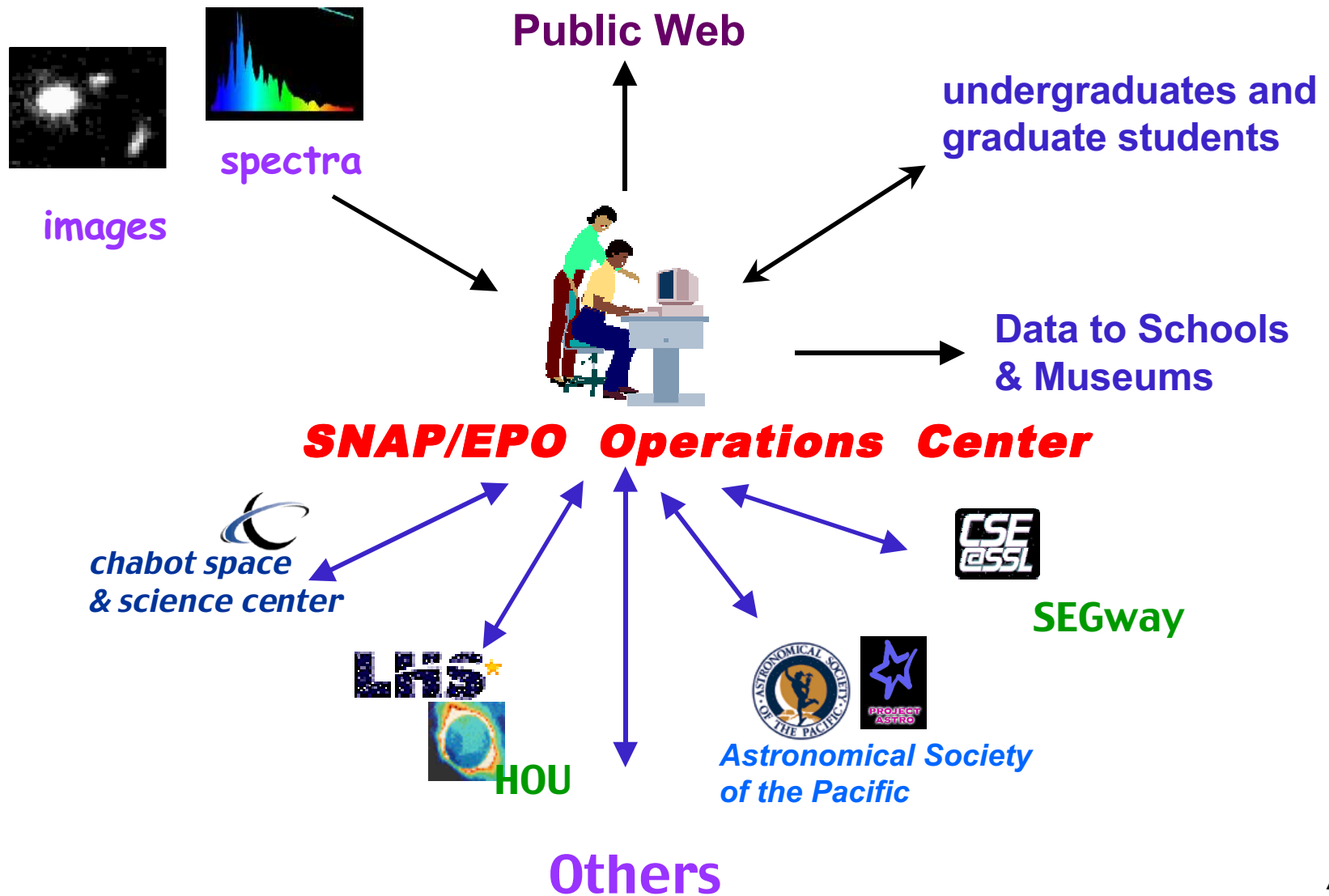
- primary & secondary school students
- undergraduates
- graduate students
- teachers
- and the public

to participate directly in this forefront science experiment

SNAP invites students, teachers and the public to join this exciting science



Education and Public Outreach is an Integral part of the SNAP project





EPO Operations Center

- Coordinate education and outreach programs
 - Development of K-14 activities and materials
 - Pre- and In-service teacher training
 - Undergraduate research programs
 - Graduate student training
- Connect mission scientists and engineers to education programs
- Facilitate transfer of SNAP data to the public
 - Major web-based outreach effort
 - Schools, museums
 - User-friendly software tools



Education and Public Outreach Programs

- SNAP and Science Literacy
 - Activities and instructional materials for
 - K-14 students and teachers
 - museums, planetariums, technology centers
- Direct Public Outreach
 - Up to date web site
 - Press kits for the media
 - Information for scientific community
- Training
 - Undergraduate science majors
 - Graduate students



Science Literacy:

K-14 Students & the General Public

*Children and adults best learn about science
when they do science*

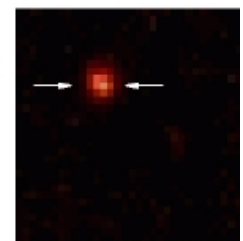
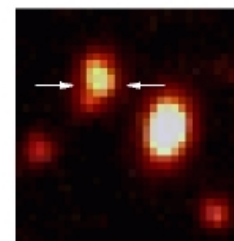
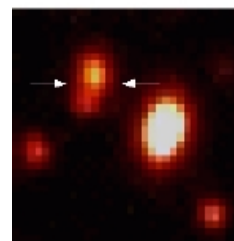
- **Real-time access to real data**
 - “patch of sky to call their own”
 - adopt supernovae and monitor lightcurves
 - investigate cosmological models using their own SNAP data
 - supernova science: create models and compare to real data
- **Real-time access to scientists:**
 - through web chats, webcasts, email, video
 - with students from around the world



Science Literacy:

Activities and Instructional Materials

- SNAP Supernova Mission (Challenger Center)
 - Students can
 - develop a science mission
 - design a telescope
 - voyage to a supernova
- SNAP Virtual Science Center
- SNAP high school curriculum module for HOU
- Software tools for
 - data handling
 - analysis
 - investigating models





Science Literacy:

Undergraduate Research Experience

- **Particular emphasis on**
 - students at two- and four-year institutions without research opportunities e.g. community and small liberal arts colleges
 - underserved populations - minorities and women
- **Targets students who are**
 - education majors (pre-service teachers)
 - journalism, business, law, economics majors.
- **Summer programs at SNAP collaborating institutions**



Science Literacy: Partnerships

Partnerships with established institutions

- combine scientific and pedagogical expertise
- leverage off existing programs

For example:

Astronomical Society of the Pacific

Chabot Space and Science Center

Lawrence Hall of Science

UC Berkeley Space Sciences Laboratory

Boston Museum of Science

Adler Planetarium

and museums, planetariums and other such
institutions in collaborating countries



Direct Public Outreach

- **Comprehensive web site**
 - multi-layered
- **Public events at/with partner institutions**
 - webcasts, press conferences
- **Strong link between live events and web site**
- **Coordinated with science education programs**
- **Outreach modules on key elements of SNAP mission**
 - press kits



Training Undergraduate Science Majors and Graduate Students

First class students become first class scientists and engineers by learning to use first class instruments and techniques

- **SNAP Undergraduate Program**
 - Diverse, international group of upper level undergraduates train with SNAP scientists and engineers at collaborating SNAP institutions
 - Coordinated and monitored by SNAP EPO operations
- **Graduate Students**
 - Immediate research experience with SNAP teams at collaborating institutions on the most exciting current science
 - Research continues during academic year
 - Plan undergraduate program and serve as mentors.